

Harnessing AI in Libraries: Role of Nep 2020 in Shaping Future Library Practices

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Abstract

The National Education Policy 2020 has given importance to Artificial Intelligence for latest Education System by implementing Coding, AI, CHATGPT in Curriculum, Teaching and Learning. The NEP recommended implementation of AI from Grade 6 onwards to improve the digital skills of students. Libraries with modern technologies like AI plays an important role in shaping and building the modern libraries.

Keywords: National Education Policy, Artificial Intelligence, Policy Making.

AI integration in libraries faces its future transformation through the National Education Policy 2020.

The National Education Policy (NEP) 2020 intends to change educational standards through technological integration with online learning resources. This policy recognizes libraries as fundamental knowledge dissemination centers so they will experience major modifications. Libraries extend user satisfaction while modernizing their procedures through artificial intelligence technology to resolve access issues. NEP 2020 imagines libraries which will become advanced technological facilities while seeking inclusivity together with personalized services to develop a complete learning system.

The following discussion will analyze NEP 2020's Course this policy on future library operations through AI-based technological advancements.

1. Digital and Technological Integration

NEP 2020 encourages technology adoption through which libraries function as key implementers of educational accessibility improvement. AI technology transforms basic library facilities into modern automated and modern facilities which offer interactive electronic services.

Search engines enhanced by artificial intelligence technology provide users with exact results by evaluating context against keywords instead of solely matching keywords.

- AI algorithms generate metadata and compile book and journal classifications through automated processes which decreases manual efforts while improving search outcomes.
- AI-powered computer-assisted chatbots enable users to locate resources and answer their common questions and provide step-by-step help for library service access through voice commands.
- The AI-based solutions work together with libraries to enhance their operational efficiency while creating accessible learning environments as demonstrated by NEP 2020.

2. Personalized Learning & Smart Recommendations

NEP 2020 makes personalized learning experiences along with adaptability the main focus. AI systems which operate library services study audience behaviors along with individual reading habits and academic learning procedures to create individualized recommendations.

- The mechanisms of Machine Learning algorithms use past reading habits and user interests to automatically recommend books together with research papers and digital content.
- The adaptive learning tools controlled by AI provide personalized educational pathways to students thereby improving their learning retention and their engagement levels.
- Students obtain relevant research materials that suit their educational needs through AI- based smart book recommendation technology.

The data-centric method of library service delivery provides each learner with important and customized learning resources which establish libraries as essential virtual students.

3. Multilingual Access & Inclusivity

Through NEP 2020 the government emphasizes incorporating multiple languages and bringing knowledge to linguistic communities of varying backgrounds. Modern artificial intelligence technologies support library services in breaking down language limitations through the following methods:

- AI translation tools at libraries enable instant text translation which allows users to access content through various languages.
- The text-to-speech along with speech-to-text conversions enabled by AI technology help people with vision impairments to access books and articles in audio format which increases accessibility for all.
- The digital technology processes and organizes content in local and native languages to enable libraries better serve their non-English speaking rural readers.

The implementation of AI technologies for language processing and accessibility enables libraries to maintain the education accessibility objectives presented in NEP 2020 for all students.

4. Automated Library Management Systems

Library management of extensive physical and digital resource collections proves to be an advanced challenge. The educational policy NEP 2020 predicts that artificial intelligence automation will simplify these operations through:

- RFID systems with AI technology monitor book locations automatically so they eliminate human work from cataloging activities and minimize resource loss.
- AI technologies enable predictive analytics to forecast which books will be popular thus enabling librarians to make best decisions regarding purchases renewals and stock arrangements.
- Through automated chatbot systems powered by AI users can receive answers to their queries and renew books as well as gain digital support continuously which increases library operational efficiency.

Library staff will be able to prioritize user engagement activities through AI-assisted automation because routine administrative work will require less professional attention.

5. Open & Digital Learning Resources

NEP 2020 promotes the implementation of Open Educational Resources (OER) and digital repositories because it enables free knowledge access for all users. AI plays a critical role in:

The combination of AI with content automation produces programmed algorithms which select supreme open-access educational materials to present students and researchers with accessible learning content.

- Research submission detection becomes more secure through AI-based plagiarism tools which check for duplicate content.
- AI technology enables libraries to perform digital archiving by scanning historical texts along with indexing and preservation tasks that make rare manuscripts and books available online.
- Libraries employing AI technology can enhance their digital accessibility which enables students and researchers to gain anytime-access to knowledge according to the digital learning principles established by NEP 2020.

Through AI implementation libraries can extend their online content availability which enables students and researchers to gain access during any time and location as per NEP 2020's digital learning requirements.

6. Research & Data Analytics for Policy Making

Throughout each day libraries produce significant quantities of data from their user activity. The National Education Policy of 2020 supports decisions grounded in evidence base and AI delivers support under three criteria:

- The analysis of user engagement and borrowing statistics through artificial intelligence tracks readers' patterns while developing strategic collection plans.
- AI-induced knowledge graphs deliver optimal research assistance which enables researchers to trace appropriate research content and academic connections more rapidly.
- Using AI-derived information libraries can propose operational improvements and curricular transformations and library upgrades that align with documented user demands.

The implementation of AI-driven analytics by libraries will produce enhanced policymaking and resource distribution to enhance the effectiveness of education systems.

7. Bridging the Urban-Rural Divide

Indian education faces its largest difficulty when trying to connect digital opportunities between students who live in cities and those located in rural areas. NEP 2020 aims to establish equal access to superior education which AI-powered libraries empower by:

- Remote students are provided access to virtual digital collections and online lectures through AI-powered search engines that recommend content.
- Through AI chatbots students from rural areas can easily understand library assistance when their queries are answered in their local languages.

CONCLUSION

NEP 2020 creates a solid base for using artificial intelligence to modernize libraries by making them high-tech centers that welcome all students as knowledgeable users. The integration of Artificial Intelligence transforms library operations through automated cataloging systems and personalized learning and smart search and multilingual programming capabilities and virtual library institutions that modernize knowledge access and operation efficiency and user interaction.

Librarians who implement AI technologies will create better learning experiences while supporting academic research and making their operations more efficient therefore maintaining the relevance of

modern libraries in India's transforming educational environment.

Rural neighborhoods gain access to knowledge through AI-powered mobile library vans which deliver digital access points through their smart systems.

Libraries using AI-based remote services and mobile services will help achieve NEP 2020's educational equity goal by granting world-class learning access to all students located anywhere.

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